

Message Text

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ACTION AEC-11

INFO OCT-01 NEA-10 ADP-00 AID-20 ACDA-19 CIAE-00 INR-10

IO-13 L-03 NSAE-00 NSC-10 RSC-01 SCI-06 SCEM-02 RSR-01

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R 230730 Z JUN 73

FM AMEMBASSY NEW DELHI

TO SECSTATE WASHDC 5142

UNCLAS SECTION 1 OF 2 NEW DELHI 7373

FROM PINAJIAN FOR FRIEDMAN, USAEC, GERMANTOWN

E. O. 11652: N/ A

TAGS: ENGR IN

SUBJECT: MAHARASHTRA- GUJARAT POWER CRISES

FOLLOWING SENT ACTION NEW DELHI FROM BOMBAY JUNE 22 REPEATED
FOR YOUR INFORMATION:

QUOTE

BOMBAY 1244

REF: BOMBAY 1193

1. SUMMARY: SEQUENCE OF WEEK- LONG POWER CRISIS BROUGHT ON BY
TRIPPING OF TRANSMISSION LINES FOLLOWS. SALT DEPOSITS ON
TRANSMISSION LINE INSULATORS ARE SUSPECT. WEEK ENDS WITH
BOTH TARAPUR UNITS CAPABLE OF PRODUCING POWER, BUT UNABLE
TO USE TRANSMISSION LINES. HYDRO POWER OUTLOOK POOR DUE TO
POOR MONSOON.

2. REFERENCE TELEGRAM DESCRIBES LOSS OF TATA'S TROMBAY
THERMAL IV (140 MW) STATION ON FRIDAY JUNE 8 DUE TO LIGHTN-
ING STRIKE DURING PREMONSOON RAINS. THIS OCCURRED AT A
TIME WHEN ONE 150 MW UNIT OF NASIK THERMAL STATION WAS OUT.
ARRIVAL OF MONSOON ON MONDAY JUNE 11 RESULTED IN LIGHTNING
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STRIKE OF TRANSMISSION LINE NEAR NAVSARI, CUTTING OFF THE TARAPUR SUPPLY TO GUJARAT. LATE TUESDAY JUNE 12 APPARENT FAILURE/ ERROR IN LINE REPAIR CAUSED SUBSEQUENT SCRAMMING OF BOTH TARAPUR REACTORS (OPERATING AT 350 TO 360 MW AT TIME) WHEN ONE OF GUJARAT FEEDERS WAS SWITCHED ON. WITH SUBSEQUENT REDUCTION OF MAHARASHTRA POWER FROM 1050 MW TO 700 MW (ONE- THIRD DROP IN LOAD LED TO CONCOMITTANT FREQUENCY DROP FROM NORMAL 50 CYCLES TO 46.5 CYCLES). TARAPUR UNITS I AND II RESYNCHRONIZED ON GRID WEDNESDAY JUNE 13, REACHING 328 MW BY THURSDAY JUNE 14. NASIK GENERATOR WAS BACK IN COMMISSION ON FRIDAY JUNE 15 AND TATA THERMAL UNIT IV BACK ON SATURDAY JUNE 16. KOYNA LAKE LEVEL UP APPROXIMATELY ONE METER AND RISING BY SATURDAY JUNE 16, SUPPLYING 250 MW TO MAHARASHTRA AND 120 MW TO GUJARAT. BIRA LAKE ALSO RISING SLOWLY. MONSOONS TAPERED OFF MID- WEEK TO PLEASANT BALMY WEATHER WITH LITTLE INDICATION OF ADDITIONAL RAIN.

3. SATURDAY JUNE 16 GUJARAT CHIEF MINISTER OZA ANNOUNCED REMOVAL OF 8- MONTH- OLD POWER RESTRICTION (INITIATED AT TIME BHUBARAN STATION TROUBLE ON OCTOBER 12, 1972) BECAUSE OF GOOD START OF THE MONSOON AND NORMAL WORKING OF THE TARAPUR POWER STATION. GUJARAT STATE GOVERNMENT PAPER SUBMITTING NEEDS TO CENTRE REPORTED GENERATION CAPACITY AVAILABLE IN GUJARAT BY END OF FOURTH PLAN AT ABOUT 1200 MW AND SUGGESTS 1500 MW IN FIFTH PLAN WILL BE REQUIRED TO MEET GROWING DEMANDS FOR POWER.

4. EARLY MORNING SUNDAY JUNE 17 FOUND TARAPUR I AND II OPERATING, KOYNA LAKE HAD NOW RISEN 3 FEET DURING THE LAST 48 HOURS ENABLING CONTINUING INCREASE IN POWER GENERATION. AT 0626 HOURS BOTH 140 MW UNITS OF THE NASIK STATION WERE ISOLATED WHEN THE 220 KV NASIK- KALVA TRANSMISSION LINE TRIPPED. NASIK UNIT II BACK IN OPERATION AT 1100 HOURS, SUPPLYING 60 TO 70 MW; UNIT I EXPECTED TO BE IN OPERATION BY WEDNESDAY, JUNE 20. AT 1745 HOURS TWO GUJARAT FEEDERS AT TARAPUR TRIPPED, WITH THE RESULTANT SCRAMMING OF BOTH REACTORS. ACCORDING TO DAE " REACTORS RECEIVED SEVERE SHOCK" AND SUBSEQUENT TESTS SHOWED UNIT II DAMAGED (AEC SCI REP STATES PROBABLY ASSOCIATED SWITCHING RATHER THAN REACTOR). AT THE TIME THE TARAPUR STATION WAS PRODUCING 380 MW OF WHICH 250 MW WAS BEING SUPPLIED TO MAHARASHTRA. KOYNA LAKE UNCLASSIFIED

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NOW RISEN 4.5 METERS SINCE BEGINNING OF MONSOON AND STATION ABLE TO INCREASE POWER GENERATION FROM 250 TO 400 MW. A 60 MW KOYNA UNIT WAS TAKEN OFF THE SUPPLY LINE FOR 4 HOURS FOR MINOR TROUBLE REPAIRS. MULSHI LAKE LEVEL HAS GONE UP BY ONE FOOT IN LAST 24 HOURS. TATA' S HUDRO- ELECTRIC AT BIHRA GOES FROM 60 TO 110 MW.

5. MONDAY JUNE 18 FINDS 50 PERCENT POWER CUT IN GOA
ANNOUNCED BY MYSORE STATE ELECTRICITY BOARD. BECAUSE OF
PAUCITY OF RAINS, SHARAVATI RESERVOIR LOW. TARAPUR UNIT I
WAS STARTED UP AT 0200 HOURS AND WAS PRODUCING 160 MW BY
EARLY MONFAY MORNING. AEC CHAIRMAN COMMENTED TO PRESS " I DO
NOT KNOW WHAT IS HAPPENING IN GUJARAT". FURTHER, HE SUGGESTED
THAT THE CENTRE SHOULD EITHER SUPERVISE MAJOR GENERATION AND
MAJOR TRANSMISSION LINES OR TAKE THEM OVER COMPLETELY. UNIT
II HAD LOST ITS INSULATORS AND ITS FANS WERE DAMAGED. 25
TECHNICIANS WERE DISPATCHED TO CARRY OUT REPAIRS. IN THE MEANTIME
MEANTIME TARAPUR WOULD NOT SUPPLY POWER TO GUJARAT UNTIL
THE GUJARAT TRANSMISSION FEEDERS WERE FULLY CLEARED. TARAPUR
TRANSMISSION LINE TO BORIVLI TRIPPED AT 2200 HOURS OWING TO
FLASH- OVER OF TWO LINE INSULATORS, WHILE TRANSMISSION LINE
TO KALWA IN THANA FROM NASIK THERMAL STATION FAILED,
POSSIBLY BECAUSE OF LIGHTNING. BOTH 140 MW UNITS OF NASIK
STATION WERE ISOLATED FROM THE GRID AT 0626 HOURS WHEN THE
220 KV NASIK- KALVA TRANSMISSION LINE TRIPPED. THE TRIPPED
LINE WAS RETURNED TO SERVICE QUICKLY. NASIK UNIT II WAS
SUPPLYING 60 TO 70 MW BY 1100 HOURS. UNIT I STILL OUT. KOYNA
GENERATING 480 MW (ONE 60 MW UNIT WITH MINOR TROUBLE WAS
TAKEN OFF GRID), MYSORE 85 MW, TARAPUR 160 MW, TATA HYDEL
115 MW, TATA THERMAL 35 MW AND CHOLA 35 MW. SIGNED BANE
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ACTION AEC-11

INFO OCT-01 NEA-10 ADP-00 AID-20 ACDA-19 CIAE-00 INR-10

IO-13 L-03 NSAE-00 NSC-10 RSC-01 SCI-06 SCEM-02 RSR-01

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R 230730 Z JUN 73

FM AMEMBASSY NEW DELHI

TO SECSTATE WASHDC 5143

UNCLAS SECTION 2 OF 2 NEW DELHI 7373

FROM PINAJIAN FOR FRIEDMAN, USAEC, GERMANTOWN

FOLLOWING SENT ACTION NEW DELHI FM BOMBAY JUN 22 REPEATED FOR
YOUR INFORMATION

QUOTE

BOMBAY 1244

6. TUESDAY, JUNE 19. WITH BOTH TARAPUR AND NASIK UNITS
OFF GRID, POWER CRISIS DEEPENS. TRANSMISSION LINES TO
TARAPUR CHARGED AT 1215 HOURS AND AUXILIARY SUPPLY NECESSARY
TO START UP STATION WAS MADE AVAILABLE AT 1415 HOURS. GUJARAT
CHIEF MINISTER OZA ANNOUNCES THAT THE GUJARAT GOVERNMENT WILL
APPROACH THE CENTRAL WATER AND POWER COMMISSION TO DEMAND
INQUIRY INTO RECENT FAILURE OF TARAPUR ATOMIC POWER
STATION. OZA SAYS GUJARAT WILL NOT BE "SCAPEGOAT" FOR
TARAPUR FAILURE WHEN FAULT WITH ATOMIC ENERGY COMMISSION
ADMINISTRATION. REFUTES CLAIM THAT THREE FAILURES OF GUJARAT
FEEDER RESPONSIBLE FOR TARAPUR TRIPPING. SUGGESTS DAE SETHNA
SHOULD SET RIGHT HIS OWN ORGANIZATION. STATEMENTS RECEIVE
WIDESPREAD PRESS NOTICE. DAE SETHNA'S SUGGESTION OF MEETING
OF TARAPUR, MAHARASHTRA AND GUJARAT AUTHORITIES LIKELY TO
BE CARRIED OUT BY COMMISSION. TOP OFFICIALS OF CENTRAL POWER
AND WATER COMMISSION DUE TO ARRIVE WEDNESDAY. "CARONA
DISCHARGE" CITED BY DAE AS CAUSE FOR LARGE- SCALE INTERRUPTION
IN POWER IN MAHARASHTRA GRID. KALWA- TARAPUR LINES CUT DEEP
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IN JUNGLE 40 MILES FROM TARAPUR. NASIK UNIT SYNCHRONIZED
IN MORNING AND EXPECTED TO REACH 110 MW BY EVENING. NASIK
UNIT II OUT. KOYNA INCREASED OUTPUT TO 540 MW AND MYSORE
SUPPLYING 80 TO 90 MW. TATA HYDEL SUPPLYING 155 MW AND TATA
THERMAL 115 MW. HYDEL UNITS WORRIED ABOUT FALL IN LAKE
LEVELS AT MULSHI, VALVAL, BHIVPURI AND BHIRA. BY END OF DAY
1150 MW DEMAND BEING MET: 480 MW FROM KOYNA, 90 MW FROM
NASIK, 160 MW FROM TARAPUR, 150 MW FROM TATA HYDEL PROJECTS,
115 MW FROM TATA THERMAL, 35 MW FROM CHOLA, 90 MW FROM MYSORE
AND 30 MW FROM THE VIDARBHA- KHANDESH- MAHARASHTRA GRID.
WATER LEVEL INCREASES IN LAKES TAPERING OFF AND LITTLE
LIKELIHOOD OF INCREASING LEVEL OF POWER GENERATION UNLESS
WATER IN LAKES RISES. WEATHER CONDITIONS STABLE WITH NO
INDICATION OF RAIN.

7. WEDNESDAY JUNE 20. WITH WORSENING CRISIS, INDUSTRIES
MINISTER TIDKE ANNOUNCES PRECAUTIONARY MEASURES RESTRICTING
USE OF AIRCONDITIONING TO HOSPITALS, COLD STORAGE VAULTS,
FOOD AND COMPUTER INSTALLATIONS. MAHARASHTRA CHIEF MINISTER
NAIK URGES UNION CONSTRUCTION OF NEW MAJOR INTERSTATE POWER
PROJECT AND GRIDS. IN EARLY MORNING HEAVY LIGHTNING TRIPPED
220 KV TRANSMISSION LINES FROM NASIK TO KALWA WITH AT LEAST
8 INSULATOR FLASHES AND POWER NOT AVAILABLE FROM NASIK
THERMAL UNTIL LATE AT NIGHT. FINANCIAL EXPRESS EDITORIAL ON
OZA- SETHNA SPAT SUGGESTING HIGH- LEVEL INQUIRY. TATA'S

THERMAL UNIT IV AT TROMBAY COMMISSIONED EARLY IN MORNING AND GENERATING MORE THAN 60 MW. ONE OF THREE 62.5 MW UNITS STILL OUT. THE VIDARBHA- MANMAD SYSTEM BEING LINKED TO THE MAHARASHTRA GRID AND SUPPLYING 30 MW. MYSORE GIVING 90 MW, KALWA- TARAPUR LINE REPAIRED AND ONE LINE CHARGED. TIDKE EXPRESSES CONCERN OVER WEAK MONSOON. KOYNA GENERATING 550 MW BUT CAN NOT CONTINUE LONG IF RESERVOIR LEVEL DROPS MUCH FURTHER. INDUSTRIAL CONSUMERS IN BOMBAY- THANA- POONA BELT ASKED TO REDUCE CONSUMPTION 25 PERCENT FROM 0600 TO 2400 HOURS. TEXTILE INDUSTRY IN TURMOIL. LOSSES PLACED AT RS.20 MILLION. TARAPUR UNIT II COMES ON AT 2231 HOURS AND SOON PRODUCING 100 MW. UNIT I EXPECTED ON STREAM THURSDAY, JUNE 21. BOTH MAHARASHTRA LINES READY. THURSDAY JUNE 21. TARAPUR UNIT I COMMISSIONED AT 0900 HOURS. MAHARASHTRA STATE ELECTRICITY BOARD ANNOUNCES ALL TOWERS ON TRANSMISSION LINES BEING WASHED. DAE SETHNA GIVES RESULTS OF INVESTIGATION OF UNCLASSIFIED UNCLASSIFIED

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SALT DEPOSITS ON SWITCH GEAR AT TARAPUR -- SIX TIMES AS MUCH SALT PER SQUARE CENTIMETER AS COMPARED TO 1970, 71, 72 (107 MICROGRAM/ CENTIMETER SQUARED: 17 MICROGRAM/ CENTIMETER SQUARED). CENTRAL WATER AND POWER COMMISSION TEAM, AFTER DISCUSSIONS WITH GUJARAT STATE ELECTRICITY BOARD, MAHARASHTRA STATE ELECTRICITY BOARD AND TATA OFFICIALS, LEAVE FOR SITE EXAMINATION AT TARAPUR. BY EVENING TARAPUR UNITS I AND II PRODUCING 250 MW WITH EXPECTATION OF FULL POWER BY FRIDAY MORNING.

8. FRIDAY JUNE 22. EARLY MORNING (0130 HOURS), WITH TWO GUJARAT LINES NOT CHARGED, ONE OF TWO MAHARASHTRA LINES WAS BEING TAKEN OUT FOR SERVICE WHEN THE OTHER LINE TRIPPED. TARAPUR SUPPLY LOST. WITH NO TRANSMISSION LINES AVAILABLE, UNIT I SHUT DOWN AND UNIT II USED FOR HOUSE LOAD OF 15 MW. WEEK ENDING WITH LAKE LEVELS FALLING RAPIDLY, BOTH TARAPUR UNITS OFF GRID, TRANSMISSION LINES BEFOULED AND NORAIN IN SIGHT.

9. USAEC SCI REP REQUESTS TEXT OF CABLE BE SENT TO DR. A. S. FRIEDMAN, DIRECTOR, DIP, USAEC, GERMANTOWN. SIGNED BANE UNQUOTESCHNEIDER

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*** Current Classification *** UNCLASSIFIED

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